APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/713,623	11/13/2003	Christian Behrens	16104-009001 / 2003P00802	2446

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EXAMINER
TIMBLIN, ROBERT M

ART UNIT	PAPER NUMBER
2167	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

PTOL-90A (Rev. 04/07)

	Application No.	Applicant(s)
Office Action Summary	10/713,623	BEHRENS ET AL.
	Examiner	Art Unit	
	Robert M. Timblin	2167	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>09 February 2007</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-7, 9-12, ,and 15-23* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-7,9-12 and 15-23* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

This Office Action corresponds to application 10/713,623 and applicant's remarks/amendments filed February 9 2007.

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 2/9/2007 has been entered.

Response to Amendment

Independent claims 1, 11, 22, and 23 have been amended and claims 8, 13, and 14 have been cancelled. Accordingly claims 1-7, 9-12, and 15-13 are pending.

Claim Rejections - 35 USC § 101

The amendments to claims 1-22 are sufficient to overcome the previous given USC 101 rejection. Therefore, the 101 rejection to those claims are respectively withdrawn.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 22 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Specifically, the phrase "operable to" renders the claim indefinite as being "operable to" suggests an option that the functionality may or may not happen. Replacing this phrase with configured to may be sufficient to overcome the rejection.

Claim Rejections - 35 USC § 102

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-7, 9-12, and 15-13 are rejected under 35 U.S.C. 102(b) as being anticipated by Zhou et al ('Zhou' hereinafter) U.S. Patent Application 2002/0162093 A1.

With respect to claim 1, Zhou teaches a computing system comprising:

a user interface (102 (1-n)) configured to collect multiple data entries from a corresponding user device (figure 1, abstract, 0021; requests);

an object model controller (drawing references 220, 222, and figure 2) configured to associate, at runtime (abstract), the multiple data entries (figure 1; requests) with an object belonging to a model class (paragraphs 0036-0038), and to prevent the object from being modified by another user interface (0102),

business logic (drawing reference 204, and paragraphs 0030-0034) configured to

process objects belonging to the model class (paragraphs 0036-0038); and

an intermediate layer (drawing reference 202 and figure 2) interposed between

the user interface (at least drawing references 110, 212 and figures 1-2) and object

model controller (drawing references 220, 222, and figure 2), and the business logic

(drawing reference 204);

wherein the object model controller (drawing references 220, 222, and figure 2)

is configured to provide the object with which the multiple data entries are associated to

the intermediate layer, and wherein the intermediate layer is configured to rearrange

data in the object into a format that is optimized for processing by the business logic

and provide the object whose data has been rearranged to the business logic for

processing (paragraphs 0031-0033).

With respect to claim 2, Zhou teaches the computing system of claim 1 wherein

the system is configured to conduct a data flow between the user interface and the

business logic through the intermediate layer (figure 2 and 3 and paragraphs 0038 and

0057).

With respect to claim 3, Zhou teaches the computing system of claim 2 wherein

the data flow is initiated by one or more actions of the user interface, wherein the one or

more actions comprise any one of an opening of a user interface and an entering of

data in the user interface (figure 4, drawing references 400, 406, 408).

With respect to claim 4, Zhou teaches the computing system of claim 1 wherein the intermediate layer is further configured to optimize the arrangement of data for the business logic (0031), wherein the rearrangement of data collected by the user interface comprises data collection (paragraph 0076) from the user interface and translating the collected data for the business logic (paragraph 0033).

With respect to claim 5, Zhou teaches the computing system of claim 1 wherein the intermediate layer is configured to provide a buffering of data flow between the user interface and the business logic, wherein the buffering of data flow enables the system to perform batch processing of a plurality of business processes (0074 and 0085; resource bundle).

With respect to claim 6, Zhou teaches the computing system of claim 1 wherein the business logic comprises a general business logic layer for common business functions and applications, wherein the intermediate layer is further configured to format the data for use in the general business logic layer (figure 4 and business logic layer 204).

With respect to claim 7, Zhou teaches the computing system of claim 1 wherein the intermediate layer is configured to perform one or more operations on one or more objects to reduce an amount of business processes performed by the business logic

(paragraph 0030), wherein the one or more operations on the one or more objects comprise collecting and formatting one or more classes of objects (abstract, 0022 and 0047).

With respect to claim 9, Zhou teaches The computing system of claim 1 wherein the object model controller is configured to send data requests to the intermediate layer (figure 1), wherein the data requests comprise any one of a read data request, a modify data request, and an insert data request, and wherein the object model controller further comprises an object-oriented interface (paragraph 0051).

With respect to claim 10, Zhou teaches the computing system of claim 1 further comprising a database configured to receive data from the business logic and send data to the business logic (paragraph 0026 and drawing references 108 424, and 432) and wherein the system is configured to send business logic data to the user interface through the intermediate layer (figures 1 and 2).

With respect to claim 11, Zhou teaches a computer-implemented method comprising:

receiving multiple data entries in a user interface (figure 1, abstract, 0021; requests);

passing the object to an intermediate layer (paragraphs 0031-0032), the intermediate layer being configured to interact with the user interface (figure 1;

requests/replies and figure 2), the object model controller (drawing references 220, 222,

and figure 2), and a layer of business logic (204);

performing one or more operations on data in the object passed to the

intermediate layer (e.g. translating, paragraph 0033);

sending any one of data and instructions from the intermediate layer to the layer

of business logic (paragraph 0033);

processing one or both of the data and instructions in the layer of business logic

(drawing reference 204); and

sending one or both of processed data and processed instructions from the layer

of business logic to the user interface (figure 1).

With respect to claim 12, Zhou teaches the computer-implemented method of

claim 11 wherein the sending of one or both of processed data and process instructions

comprises passing the one or both of the process data and processed instructions

through the intermediate layer (paragraphs 0031-0032).

With respect to claim 15, Zhou teaches the computer-implemented method of

claim 11 wherein the intermediate layer is configured to perform the following

operations:

receiving an instruction from the object model controller (0032);

performing one or more operations relating to the received instruction (0032-

0033); and

issuing one or more instructions to the layer of business logic (drawing reference 204).

With respect to claim 16 Zhou teaches the computer-implemented method of claim 15 wherein the intermediate layer determines whether the received instruction from the object model controller comprises any one of a known object, an unknown object, or a modification of a known object (paragraph 0090 and figure 5).

With respect to claim 17, Zhou teaches the computer-implemented method of claim 16 wherein, in response to the received instruction from the object model controller, the intermediate layer is further configured to perform any of the following operations: instructing the layer of business logic to approve previous instructions and data entries; instructing the layer of business logic to save data in a database (figure 5); and initializing a framework to enable a user to perform data entry (figures 4-5 and paragraph 0091).

With respect to claim 18, Zhou teaches the computer-implemented method of claim 11 further comprising:

sending the data from the layer of business logic to a database (figure 5); and

saving the data in the database upon receiving the data from the layer of business logic (figure 5 drawing reference 510).

With respect to claim 19, Zhou teaches the computer-implemented method of claim 11 wherein the intermediate layer is configured to optimize one or more processes in the layer of business logic (paragraphs 0031-0032), and wherein the intermediate layer enables batch processing of data entered in the user interface (0074 and 0085; resource bundle).

With respect to claim 20, Zhou teaches the computer-implemented method of claim 11 wherein the intermediate layer maintains data entries and modifications among various object classes, and wherein the layer of business logic comprises common business functions and applications (paragraph 0036).

With respect to claim 21, Zhou teaches The computer-implemented method of claim 11 wherein a data flow between the user interface and the layer of business logic is initiated by one or more actions of the user interface, wherein the one or more actions of the user interface comprise any one of an opening of the user interface and a data entry in the user interface (figure 4, drawing references 400, 406, 408).

With respect to claim 22, Zhou teaches an article comprising a machine-readable storage medium storing instructions operable to cause a machine to perform operations comprising:

receiving multiple data entries in a user interface (figure 1, abstract, 0021; requests);

in an object model controller (drawing references 220, 222, and figure 2), associating, at runtime (abstract), the multiple data entries with an object belonging to a model class (paragraphs 0036-0038), and preventing the object from being modified by another user interface (0102);

passing the data object to an intermediate layer (paragraphs 0031-0032), the intermediate layer being configured to interact with the user interface (figure 1; requests/replies and figure 2), the object model controller and a layer of business logic (204);

performing one or more operations on data in the object passed to the intermediate layer (e.g. translating, paragraph 0033);

sending one or both of data and instructions from the intermediate layer to the layer of business logic (paragraph 0033);

processing one or both of the data and instructions in the layer of business logic (drawing reference 204); and

sending one or both of processed data and processed instructions from the layer of business logic to the user interface (figure 1), wherein the sending of any one of processed data and processed instructions comprises passing the any one of processed data and processed instructions through the intermediate layer (paragraph 0064 and figure 1).

With respect to claim 23, Zhou teaches a computing system comprising:

a network of computers (figure 1), wherein the network of computers comprises a database (figure 1, drawing reference 108) and at least one user interface (drawing reference 102) that is configured to collect multiple data entries from a corresponding computer in the network of computers (figure 1; requests/replies and abstract and paragraph 0029);

an object model controller configured to associate (drawing references 220, 222, and figure 2), at runtime (abstract), the multiple data entries with an object belonging to a model class (paragraphs 0036-0038), and to prevent the object from being modified by another user interface (0102);

a plurality of business logic configured to perform a plurality of business functions and applications (drawing reference 204); and

an intermediate layer (drawing reference 202 and figure 2) interacting with the at least one user interface (paragraph 0033), the object model controller and the plurality of business logic (system 110),

wherein the object model controller (drawing references 220, 222, and figure 2) is configured to provide the object with which the multiple data entries are associated to the intermediate layer; wherein the intermediate layer is configured to format and rearrange data in the object to optimize the processing of data in the plurality of business logic (paragraphs 0031-0033), wherein a data flow between the at least one user interface and the plurality of business logic is conducted through the intermediate layer (figure 2 and 3 and paragraphs 0038 and 0057), wherein the plurality of business

logic (drawing reference 204) is further configured to process data in the object and

wherein the plurality of business logic interacts with the database (paragraph 0026 and

drawing references 108 424, and 432).

Response to Arguments

Applicant's arguments, see response, filed 2/9/2007, with respect to claims 1-23

have been fully considered and are persuasive. Therefore, the rejection has been

withdrawn. However, upon further consideration, a new ground(s) of rejection is made

in view of Zhou as presented above.

Conclusion

The prior art made of record and not relied upon is considered pertinent to

applicant's disclosure.

U.S. Patent 6,732,109 to Lindberg et al. The subject matter disclosed therein

pertains to the pending claims (i.e. intermediate layer).

U.S. Patent 6,968,538 to Rust et al. The subject matter disclosed therein

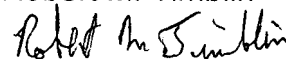pertains to the pending claims (i.e. Object model controller).

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert M. Timblin whose telephone number is 571-272-5627. The examiner can normally be reached on M-F 8:00-4:30.
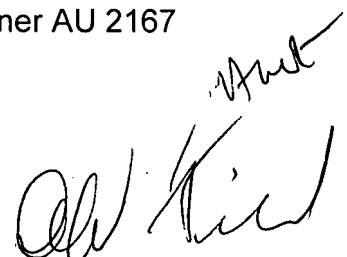
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John R. Cottingham can be reached on 571-272-7079. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Robert M. Timblin

Patent Examiner AU 2167
4/23/2007

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PRIMARY EXAMINER